

I CLAIM:

5 A method for maintaining a virtual presence of a first remote telephone user in a PBX system having a frame relay network connection between two endpoint routers while permitting the first remote user to make local calls, the method

comprising

first signaling a PBX to represent the remote telephone as being off hook; routing a telephone call placed at the remote telephone in accordance with a defined protocol; and

10 when the routed telephone call is terminated, second signaling the PBX to restore the on hook status of the remote telephone.

2. The method of claim 1, wherein said first and said second signaling are performed in-band.

15 3. The method of claim 2, wherein said in-band signaling is in accordance with an FRF.11 or VToA AAL2 voice over packet protocol.

20 4. The method of claim 1, wherein said telephone call-routing is to a public switched telephone network (PSTN) local to the remote telephone.

5. The method of claim 1, wherein said telephone call-routing is to another remote telephone user at the same site within the PBX system as the first remote telephone user.

25 6. The method of claim 4, wherein said call-routing to another remote same-site telephone user is performed by a router having a public switched telephone network (PSTN) local to the remote telephone and wherein said PSTN is used in said call-routing.

30 7. The method of claim 1 in which the frame relay network includes an FRF.11 or VToA AAL2 voice over packet trunk connection.

8. The method of claim 1 which further comprises:

forwarding an incoming call directed to the remote telephone to a voice mailbox generally from a time when said first signaling occurs to a time when said second signaling occurs.

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9. The method of claim 1 which further comprises:

indicating in response to an incoming call directed to the remote telephone that the telephone is busy generally from when off-hook signaling occurs to when said on-hook signaling occurs.

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10. Private branch exchange (PBX) conditioning apparatus for use in an endpoint router having a public switched telephone network (PSTN) connection and a voice-equipped frame relay network connection, the apparatus comprising:

a mechanism for selectively routing a telephone call placed at a PBX-connected telephone to the local PSTN;

a mechanism for first signaling the PBX that the PBX-connected telephone is temporarily incapable of receiving calls;

a mechanism for detecting a termination of such a PSTN-routed telephone call; and

20 a mechanism responsive to said detecting mechanism for second signaling the PBX that the PBX-connected telephone again is capable of receiving calls;

said first and second signaling mechanisms including software instructions resident on a computer-readable medium that when executed by a processor modify one or more interface status bits in the PBX.

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11. The apparatus of claim 10, wherein said routing mechanism is responsive to a predefined dialing sequence received from the PBX-connected telephone.

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12. The apparatus of claim 10 which further comprises a mechanism for alternatively routing the telephone call placed at the PBX-connected telephone to a same site PBX-connected telephone.

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13. The apparatus of claim 10, wherein said first and said second signaling mechanisms are operatively coupled to a PBX station interface associated with the PBX.

5 14. Private branch exchange (PBX) conditioning apparatus for use in an endpoint router having a public switched telephone network (PSTN) connection and a voice-equipped frame relay network connection, the apparatus comprising:
 means for selectively routing a telephone call placed at a PBX-connected telephone to the local PSTN;
 means for signaling the PBX that the PBX-connected telephone is temporarily incapable of receiving calls;
 means for detecting a termination of such a PSTN-routed telephone call; and
 means responsive to said detecting means for signaling the PBX that the PBX-connected telephone again is capable of receiving calls.

15 15. The apparatus of claim 14, wherein said routing means is responsive to a predefined dialing sequence received from the PBX-connected telephone.

20 16. The apparatus of claim 14 which further comprises means for alternatively routing the telephone call placed at the PBX-connected telephone to a same site PBX-connected telephone.

25 17. The apparatus of claim 14, wherein said first and said second signaling means are operatively coupled to a PBX station interface associated with the PBX.

30 18. A computer-readable medium containing a program for maintaining a virtual presence of a first remote telephone user in a PBX system having a frame relay network connection between two endpoint routers while permitting the first remote user to make local calls, the program comprising:
 instructions for first signaling a PBX to represent the remote telephone as being off hook;
 instructions for routing a telephone call placed at the remote telephone in accordance with a defined protocol; and

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instructions operative when the routed telephone call is terminated for second signaling the PBX to restore the on-hook status of the remote telephone.

19. The computer-readable medium in accordance with claim 18, wherein said instructions for first and second signaling are operative to perform in-band signaling in accordance with an FRF.11 or VToA AAL2 voice over packet protocol.

20. The computer-readable medium in accordance with claim 18, wherein said call-routing instructions are operative to route the telephone call to a public switched telephone network (PSTN) local to the remote telephone.

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21. The computer-readable medium in accordance with claim 18, wherein said call-routing instructions are operative to route the telephone call to another remote telephone user at the same site within the PBX system as the first remote telephone user.